Innovative Designs Lead to Timely Transfer and Saves Co

NAS CHASE FIELD

The Navy completed all remedial actions at this BRAC II Base four months ahead of schedule, allowing the Navy to transfer the facility to the Texas Department of Corrections (DOC). By implementing innovations in design and remedial technology, the Navy saved $1.77 million. Investigations were streamlined and conceptual remediation plans developed. Also, since portions of the Base had been turned over to the Texas DOC, and the Navy had demobilized its Public Works and ROICC offices, the RAC coordinated directly with Texas DOC for site access and progress briefings.

Site/Location:	NAS Chase Field Beeville, TX
Site Description:	Former Naval Air Station
Team Contact:	Ed Lohr (SOUTHDIV RPM), 843-820-7355 Greg Jones (MK)
Technology:	Engineered caps UST Removals Landfarming
Contaminant:	POLs, PCBs, and Asbestos
Action Levels:	Texas Risk Reduction Rules
Legal Driver:	RCRA, TNRCC Regulations, CAA, CWA, SWDA, and TSCA
Decision Document:	N/A

Project Summary

Remediation activities included: (1) design, installation and maintenance of a 9-acre and a 26-acre landfill cap; (2) closure of four UST sites and pipelines, formerly containing waste oil and AVGAS; (3) closure of two Fire Fighting Training Areas (FFTAs) where contaminants were primarily POL products; (4) landfarming 12,600 cubic yards of excavated soils from UST and FFTA sites; (5) testing and disposal of eight PCB transformers; (6) asbestos abatement on three buildings; (7) decommissioning 41 water and groundwater wells; and (8) installing three groundwater monitoring wells at the site.

Regulatory Requirements/Community Involvement

Regulations included RCRA, TNRCC Risk Reduction Rules, CAA, CWA, SWDA, and TSCA. The local community was involved via an Environmental Advisory Group organized by SOUTHDIV. In addition, public meetings were held to present site plans.

Construction Challenges

- The conceptual cap design included placement of a traditional clay cap. However, the cost to truck in clay to NAS Chase Field would be high. The alternative use of geosynthetic clay liner material was proposed. The alternative was approved and yielded savings to the Navy of $1.5 million over use of a traditional clay cap.
- Landfarming on a former runway was implemented instead of offsite disposal to remediate 12,600 cubic yards of POL contaminated soil from UST excavations and FFTA remediation.

Figure 1: ***Aerial view of landfill cap, IR Site 2.***

Cost Avoidance Measures

Landfarming yielded savings to the Navy of $270,000 over offsite disposal. In addition, the use of landfarming versus off-site disposal eliminated a potential long-term liability.

Project Successes

- Prior to the formal establishment of BCTs and RABs, SOUTHDIV and its contractors organized an Environmental Advisory Group comprised of representatives of SOUTHDIV, NAS Chase Field, TNRCC, EPA Region VI, the Texas Attorney General's office, and the local community. The group met regularly and expedited the closure effort by making consensus decisions rather than waiting for the normal regulatory review process.
- Following inclusion of Chase Field on the BRAC list, EPA Region VI conducted a RCRA Facility Assessment at the Base and identified

Figure 2: ***View of landfill cap construction.***

112 SWMUs that required closure before the property could be transferred. Closure was obtained for 110 of the SWMUs under the Texas Risk Reduction Rules, which were promulgated after the site investigations began, without performing any type of active remedial action.

- After the Base was decommissioned in 1993, reuse of the property was expedited using leasing arrangements and identifying "clean" parcels that could be immediately transferred such as property that was transferred to the Texas Department of Criminal Justice in 1993 for construction of a prison.
- In 1997 the remaining property at NAS Chase Field was eligible to be transferred except two solid waste landfill sites. These sites were established as separate parcels and the remainder of the property was transferred immediately to the local community.
- The two solid waste landfills were closed in accordance with municipal landfill closure regulations that required 5 years of post-closure groundwater monitoring. The Navy was able to obtain final closure after only two years of post-closure monitoring using a statistical comparison of pre-closure and post-closure groundwater monitoring data provided by the CLEAN contractor.
- Following approval of the FOSTs for NALF Goliad and the two landfills, EPA deemed all remaining property associated with NAS Chase Field suitable for transfer.
- Preparation, cap construction, and seeding of the 35 acres of landfill cover were completed in 3 months. During construction, daily placement rates of 90,000 to 100,000 square feet of geosynthetic clay liner material were achieved, more than double typical placement rates.
- Construction of the landfill caps was completed to stringent quality control criteria, including pre-construction materials testing and extensive field inspections during construction. The Navy is now performing post closure care of the sites.
- The landfarming cell was constructed on an abandoned runway, providing an excellent, low-cost foundation for the cell.

Lesson Learned

Use of innovative design and close coordination with regulators and local government improves the timely and cost-effective transfer of property.

Figure 3: ***Laying geosynthetic clay liner.***

Figure 4: ***Aerial view of landfarming cell.***

Figure 5*: Sampling drums for waste characterization.*

Figure 6*: Spraying nutrients on the landfarming cell.*